

ATTACHMENT A

CLAIMS

1. (original) A method for combining a first material and a second material, comprising the steps of

    providing a fluid which is near or in the supercritical fluid state,

    forming a single phase solution from the first material, the second material and said fluid, and

    removing said fluid from said solution in order to leave the combined first and second materials.

2. (original) A method as claimed in claim 1, wherein the first material is at least partially dissolved in said fluid and then the second material is dissolved in said fluid.

3. (original) A method as claimed in claim 1, wherein the second material is at least partially dissolved in said fluid and then the first material is dissolved in said fluid.

4. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the second material is provided in a semi-solid or molten state.

5. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the fluid is removed from said solution by reducing the pressure in order to vent the fluid to atmosphere as a gas.

6. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the fluid is removed from said solution by suction.

7. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the fluid is carbon dioxide, water, nitrogen or any

combination thereof.

8. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein said solution is processed in order to produce a  
final product.

9. (original) A method as claimed in claim 8, wherein the processing  
is extrusion or injection moulding.

10. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the first material is a material which alters the  
function of the second material.

11. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the first material comprises a mineral, a vitamin, a  
fullerene, a metal, a non-metal, a herb, a naturally occurring  
material, caffeine, an organic material, a plastics material, a  
monomer, an oligomer, a polymer, or any combination thereof.

12. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein a co-solvent is added to said fluid either before,  
after or during the formation of said single phase solution.

13. (original) A method as claim in claim 12, wherein the proportion  
of co-solvent to said fluid is about 1:20.

14. (currently amended) A method as claimed in claim 12 ~~or 13~~,  
wherein the co-solvent comprises methanol, ethanol, propanol, butyl  
alcohol, propylene carbonate, toluene, pentane, acetylacetone,  
octane, acetone or any combination thereof.

15. (currently amended) A method as claimed in ~~any preceding claim,~~  
claim 1, wherein the second material comprises a polymer, a ceramic,  
a metal or wood.

16. (original) Apparatus for combining a first material and a second material, including means operable to provide a fluid at a supercritical or near supercritical state, means for forming a single phase solution from a first material, a second material and said fluid, and means for removing said fluid from said solution in order to leave the combined first and second materials.